

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE 03/00192

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K16/28 C07K16/18 C07K16/46 A61K39/395 C12N15/13
 G01N33/577 A61P37/06 A61P19/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 91/02078 A (PEPTIDE TECHNOLOGY LTD) 21 February 1991 (1991-02-21) page 3, line 28 - page 4, line 24 page 15, line 25 - line 33	1
Y	---	2-49
Y	ELS CONRATH K ET AL: "Camel single-domain antibodies as modular building units in bispecific and bivalent antibody constructs" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 276, no. 10, 9 March 2001 (2001-03-09), pages 7346-7350, XP002248402 ISSN: 0021-9258 the whole document ---	2-49
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

° Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

7 May 2004

Date of mailing of the international search report

14/05/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>VALLE E ET AL: "Infliximab" EXPERT OPINION ON PHARMACOTHERAPY, ASHLEY, LONDON,, GB, vol. 2, June 2001 (2001-06), pages 1015-1025, XP002965315 ISSN: 1465-6566 the whole document</p>	1-49
Y	<p>WO 02/057445 A (MURUGANANDAM ARUMUGAM ; STANIMIROVIC DANICA (CA); NARANG SARAM (CA)) 25 July 2002 (2002-07-25) page 18, line 29 -page 47, line 18</p>	1-49
A	<p>WO 02/079781 A (ANDREWS JANET S ; HESKA CORP (US); JENSEN WAYNE A (US); MCDONALD TH) 10 October 2002 (2002-10-10) page 26, line 25 -page 28, line 21 page 29, line 14 - line 20</p>	4
A	<p>TANHA J ET AL: "Selection by phage display of llama conventional VH fragments with heavy chain antibody VHH properties" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER, AMSTERDAM, NL, vol. 263, no. 1-2, 1 May 2002 (2002-05-01), pages 97-109, XP004354388 ISSN: 0022-1759 the whole document</p>	1-49
A	<p>D'HAENS G ET AL: "ENDOSCOPIC AND HISTOLOGICAL HEALING WITH INFlixIMAB ANTI-TUMOR NECROSIS FACTOR ANTIBODIES IN CROHN'S DISEASE: A EUROPEAN MULTICENTER TRIAL" GASTROENTEROLOGY, SAUNDERS, PHILADELPHIA, PA,, US, vol. 116, no. 5, May 1999 (1999-05), pages 1029-1034, XP009009036 ISSN: 0016-5085 the whole document</p>	1-47

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International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 22-24
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 22-24

Present claims 22-24 relate to a product defined by reference to a desirable characteristic or property, namely "an unknown agent that modulates the binding of an anti-TNF-alpha polypeptide of any of claims 1 to 11, and 13 to 16 to Tumor Necrosis Factor-alpha" (claim 22) and "an unknown agent that modulates Tumor Necrosis Factor-alpha-mediated disorders" (claim 23). The scope of claims 22-24 is unclear and speculative within the meaning of Article 6 PCT. Said claims lack indication concerning their technical features. The available experimental data actually relate to anti-TNF-alpha single domain antibodies and their preparation, but not to an agent that modulates their binding. Consequently no search has been carried out for the claims 22-24.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9102078	A	21-02-1991	AU 640400 B2 26-08-1993
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			EP 1384075 A1 28-01-2004
			WO 02079781 A1 10-10-2002
			US 2003022262 A1 30-01-2003